

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims:

1-13. (Canceled).

14. (Previously Presented) A radio base station apparatus that communicates with a communication terminal, the radio base station apparatus comprising a transmission signal former that multiplexes a plurality of types of control information for a single communication terminal for use in uplink packet transmission, using a single spreading code and a plurality of symbol patterns that differ between the plurality of types of control information, and forms transmission signals.

15. (Previously Presented) A radio base station apparatus that communicates with a communication terminal, the radio base station apparatus comprising:

 a first transmission signal former that spreads transmission data for a first communication terminal using a first spreading code assigned to said first communication terminal and forms a first dedicated channel signal for said first communication terminal, and that spreads transmission data for a second communication terminal using a second spreading code assigned to said second communication terminal and forms a second dedicated channel signal for said second communication terminal; and

a second transmission signal former that multiplexes a plurality of types of first control information for the first communication terminal and a plurality of types of second control information for the second communication terminal using a third spreading code, which is provided for common use by the first and second communication terminals, and a plurality of symbol patterns that differ between the plurality of types of first control information and between the plurality of types of second control information and that forms transmission signals for the first and second communication terminals.

16. (Previously Presented) A radio base station apparatus that communicates with a communication terminal, the radio base station apparatus comprising a multiplexer that multiplexes a plurality of types of control information for a plurality of communication terminals for use in uplink packet transmission, using a spreading code and symbol patterns in a plurality of combinations, said plurality of types of control information being provided per communication terminal,

wherein the multiplexer multiplexes the plurality of types of control information for a single communication terminal using a single spreading code and a plurality of symbol patterns that differ between the plurality of types of control information.

17. (Previously Presented) A radio network controller apparatus comprising an assigner that assigns a spreading code and symbol patterns in a plurality of combinations to a plurality of types of control information for a plurality of communication terminals for use in uplink packet

transmission, said plurality of types of control information being provided per communication terminal,

wherein the assigner assigns a single spreading code and a plurality of symbol patterns to the plurality of types control information for a single communication terminal.

18. (Previously Presented) The radio base station apparatus of claim 15, further comprising:

a first transmit power controller that controls transmit power of dedicated channel signals on a per dedicated channel basis; and

a second transmit power controller that controls a transmit power of the plurality of types of first control information and a transmit power of the plurality of types of second control information, according to a transmit power of a dedicated channel for the first communication terminal and a transmit power of a dedicated channel for the second communication terminal, respectively.

19. (Previously Presented) The radio base station apparatus of claim 15, wherein the plurality of types of control information comprise at least one of a packet transmission rate, a coding rate, a spreading factor, the number of spreading codes, a modulation scheme, a packet data size, a transmit power, and information about retransmission.

20. (Previously Presented) A communication terminal apparatus comprising:

a despreader that despreads a signal from a radio base station apparatus using a single spreading code provided for a single communication terminal apparatus;

a decoder that extracts a plurality of types of control information using symbol patterns provided from the radio base station apparatus, said plurality of types of control information for the communication terminal apparatus being multiplexed in the signal using a plurality of symbol patterns; and

a transmission signal former that forms uplink transmission packets based on the plurality of types of control information extracted by the decoder.

21. (Previously Presented) The communication terminal apparatus of claim 20, wherein the plurality of types of control information comprise at least one of a packet transmission rate, a coding rate, a spreading factor, the number of spreading codes, a modulation scheme, a packet data size, a transmit power, and information about retransmission.

22. (Currently Amended) A transmission signal generation method comprising:

encoding a plurality of types of control information for a single communication terminal using a plurality of orthogonal symbol patterns that differ between the plurality of types of control information; and

spreading the plurality of types of control information after the encoding using a single common spreading code.

23. (Currently Amended) A method of receiving a plurality of types of control information for a communication terminal, the method comprising:

despread a received signal using a single spreading code common to the plurality of types of control information; and

decoding the signal after the despreading using a plurality of orthogonal symbol patterns that differ between the plurality of types of control information.

24. (Currently Amended) A radio communication system that transmits a plurality of types of control information for a single communication terminal for use in uplink packet transmission, the radio communication system comprising:

a radio network controller apparatus; [,]

a radio base station apparatus; [,] and

a mobile station apparatus, wherein:

the radio network controller apparatus designates a plurality of orthogonal symbol patterns, which differ between the plurality of types of control information, and a spreading code common to the plurality of types of control information for the radio base station apparatus and the mobile station apparatus;

the radio base station apparatus transmits the plurality of types of control information to the a single mobile station apparatus using the plurality of orthogonal symbol patterns and the spreading code; and

the mobile station apparatus extracts the plurality of types of control information using the plurality of orthogonal symbol patterns and the spreading code.

25. (New) The radio base station apparatus of claim 14, wherein the plurality of symbol patterns are mutually uncorrelated.

26. (New) The radio base station apparatus of claim 15, wherein the plurality of symbol patterns are mutually uncorrelated.

27. (New) The radio base station apparatus of claim 16, wherein the plurality of symbol patterns are mutually uncorrelated.

28. (New) The radio network controller apparatus of claim 17, wherein the plurality of symbol patterns are mutually uncorrelated.

29. (New) The transmission signal generation method of claim 22, wherein the plurality of symbol patterns are mutually uncorrelated.

30. (New) The radio communication system of claim 24, wherein the plurality of symbol patterns are mutually uncorrelated.